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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,390

09/29/2005

Higashi Ko

HEI-011

3327

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EXAMINER

WILLIAMS, MONICA L

ART UNIT

PAPER NUMBER

3644

MAIL DATE

DELIVERY MODE

11/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,390

Applicant(s)

KO, HIGASHI

Examiner

Monica L. Barlow

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 08/23/2007.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 19,27,28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (JPO 2002-220836) in view of Marshall et al (5,887,382).
3. In re claim 19, with reference to Figure 1, Ko discloses a vegetation block comprising a concrete block and a fiber aggregate outer layer disposed on an outer surface of the concrete and configured to support plant growth. Ko discloses the claimed invention except for the fiber aggregate comprising intertwined fibers and vertically oriented fibers.
4. However, with reference to col.9 lines 39-41, Marshall et al disclose a fiber mat comprising intertwined fibers and vertically oriented fibers. The advantage of this is to have easier seed placement in a homogeneous distribution.
5. Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the fiber aggregate of Ko with the fiber aggregate comprising intertwined fibers and vertically oriented fibers as taught by Marshall et al in order to have easier seed placement in a homogeneous distribution.

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6. Given the fiber aggregate with the same vertical orientation of fibers, the fibers would inherently perform the same function and enter into the concrete block and interconnect the fiber aggregate outer layer to the outer surface of the concrete block.

7. In re claims 27-29, with reference to Figure 2, Ko discloses a reinforcing member embedded in the concrete block main body with a ring shaped connection portion which outwardly projects from the main body which is connectable to an adjacent block.

8. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (JPO 2002-220836) in view of Marshall et al (5,887,382) as applied to claim 1 above, and further in view of Proctor (3,958,365).

9. In re claim 20, Ko and Marshall et al disclose the claimed invention except for spraying natural rubber on the mat shaped fiber aggregate.

10. However, with reference to col.2 lines 38-40, Proctor discloses spraying a fibrous mat for plant beds or pots with natural rubber, the advantage being to conserve soil moisture.

11. Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the mat-shaped fiber aggregate of Ko and Marshall et al by spraying natural rubber on it as taught by Proctor in order to conserve soil moisture.

12. In re claim 21, Ko and Marshall et al disclose the claimed invention except for mixing thermoplastic polymers in the fiber aggregate.

13. However, with reference to col.3 lines 44-53, Proctor discloses a fibrous mat for plant beds or pots where thermoplastic polymers have been mixed in the fiber

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aggregate and then die-forming the mat shaped fiber aggregate while heating. The advantage of this is to increase the rigidity and strength of the outer body layer.

14. Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the outer body layer of Ko and Marshall et al with mixing thermoplastic polymers in the fiber aggregate as taught by Proctor in order to increase the rigidity and strength of the outer body layer.

15. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (JPO 2002-220836) in view of Marshall et al (5,887,382) as applied to claim 1 above, and further in view of Marzolin et al (US 2002/0182334 A1).

16. In re claims 22, Ko and Marshall et al disclose the claimed invention except for the concrete having uniform grain sizes ranging from 10nm to 25nm and a porosity set to be 10% to 25%.

17. However, with reference to [0049] and [0050], Marzolin et al disclose a permeable architectural concrete with a porosity of about 10% to 25%. The advantage of this is to increase the permeability of water through the concrete.

18. Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the concrete main body of Ko and Marshall et al with a uniform grain size of about 15nm and a porosity of about 10% to 25% as taught by Marzolin et al in order to increase the permeability of water through the concrete.

19. In re claim 23, with respect to the grain size of the concrete, Examiner takes official notice that ^{grains come in various sizes and that} it would have been obvious to one having ordinary skill in the art at

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the time the invention was made to have concrete with a uniform grain size in a range of 10mm – 25mm in order to have a uniform concrete.

20. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (JPO 2002-220836) in view of Marshall et al (5,887,382) as applied to claim 1 above, and further in view of Dall (5,347,753).

21. In re claims 24-26 and 16-18, Ko and Marshall et al disclose the claimed invention except for using paper pulp as a water retainer and vegetable fibers for the fiber aggregate.

22. However, with reference to col.4 lines 35-45, Dall discloses a molded pulp container using paper pulp as a water retainer and vegetable fibers for the fiber aggregate. The advantage of this is to modify the strength, porosity, and density of the container.

23. Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the fiber aggregate of Ko and Marshall et al with using paper pulp as a water retainer and vegetable fibers for the fiber aggregate as taught by Dall in order to modify the strength, porosity, and density of the container.

24. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ko (JPO 2002-220836) in view of Marshall et al (5,887,382) as applied to claim 1 above, and further in view of Nogami et al (EP 0837191 A2).

25. In re claim 30, Ko and Marshall et al disclose the claimed invention except for the mat comprising multiply needled fiber aggregate stack.

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26. However, with reference to page 9 lines 16-19, Nogami et al disclose forming a fiber aggregate mat by the needle-punching method in a conventional manner. The advantage of this is to have the mat be more absorbent.

27. Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the fiber aggregate of Ko and Marshall et al to be multiply needled as taught by Nogami in order to have the mat be more absorbent.

Response to Arguments

28. Applicant's arguments with respect to claims 19-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

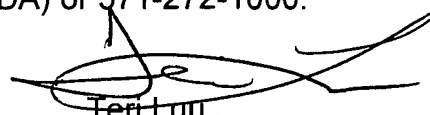
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica L. Barlow whose telephone number is 571-270-3113. The examiner can normally be reached on Mon to Fri 7:30-5:00, Alternate Friday off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Teri Luu', is written over a horizontal line.

Teri Luu
Supervisory Patent Examiner
Art Unit 3644

MB 10/25/2007